

AMENDMENTS TO THE CLAIMS

Please cancel Claims 8-15; amend Claims 1-3; and add new Claims 16-29 as follows.

LISTING OF CLAIMS

1. (currently amended) A heat exchanger for cooling air comprising;
a plurality of tubes through which fluid flows[[.]];
a plurality of passages defined by each tube through which the fluid flows;
wherein
wherein the plurality of tubes are disposed such that outer surfaces of the tubes are generally exposed to [[the]] air[[.]]; and
wherein the plurality of tubes have streamlined-shaped cross-sections so the air flows along the outer surfaces of the tubes.
2. (currently amended) The heat exchanger according to claim 1, wherein the plurality of tubes are arranged in row in a staggered configuration.
3. (currently amended ;withdrawn) The heat exchanger according to claim 1, ~~wherein each of the tubes is formed with a plurality of passages through which the fluid flows~~, wherein a most-downstream passage with respect to an air flow direction has a cross-section of a flow area greater than that of a most-upstream passage.

4. (original) The heat exchanger according to claim 1, wherein the streamlined-shaped cross-section is symmetric with respect to its longitudinal centerline.

5. (original) The heat exchanger according to claim 1, wherein the tubes are coated with a defrosting agent that restricts adhesion of frost particles.

6. (original) The heat exchanger according to claim 1, wherein the tubes are coated with a water repellent.

7. (withdrawn) The heat exchanger according to claim 1, wherein the tubes are corrugated in directions perpendicular to an air flow direction.

8.-15. (cancelled)

16. (new) The heat exchanger according to claim 1, further comprising:
an upper tank defining an upper chamber;
a lower tank defining a lower chamber; wherein
the plurality of tubes extend vertically between the upper and lower tanks
and the plurality of passages of each tube are in communication with the upper and lower chamber.

17. (new) The heat exchanger according to claim 1, wherein each tube has a dimension in a direction perpendicular a longitudinal centerline which increases to a maximum value at a middle position along the longitudinal centerline with respect to an air flow direction and reduces toward an air down stream position.

18. (new) The heat exchanger according to claim 1, wherein each tube has an air upstream side and an air downstream side, a radius of an outer surface of the air upstream side being greater than a radius of an outer surface of the air downstream side.

19. (new) The heat exchanger according to claim 1, wherein the plurality of passages each have the same cross-sectional area.

20. (new) A heat exchanger for cooling air comprising:
an upper tank defining an upper chamber;
a lower tank defining a lower chamber;
a plurality of tubes extending vertically between the upper and lower tanks, the plurality of tubes being disposed such that outer surfaces of the tubes are exposed to an air flow, the plurality of tubes having streamlined-shaped cross-sections in the direction of the air flow so that air flows along the outer surfaces of the tubes.

21. (new) The heat exchanger according to claim 20, wherein the plurality of tubes are arranged in row in a staggered configuration.

22. (new) The heat exchanger according to claim 20, wherein each of the tubes is formed with a plurality of passages through which the fluid flows, wherein a most-downstream passage with respect to an air flow direction has a cross-section of a flow area greater than that of a most-upstream passage.

23. (new) The heat exchanger according to claim 20, wherein the streamlined-shaped cross-section is symmetric with respect to its longitudinal centerline.

24. (new) The heat exchanger according to claim 20, wherein the tubes are coated with a defrosting agent that restricts adhesion of frost particles.

25. (new) The heat exchanger according to claim 20, wherein the tubes are coated with a water repellent.

26. (new) The heat exchanger according to claim 20, wherein the tubes are corrugated in directions perpendicular to an air flow direction.

27. (new) The heat exchanger according to claim 20, wherein each tube has a dimension in a direction perpendicular a longitudinal centerline which increases to a maximum value at a middle position along the longitudinal centerline with respect to the air flow direction and reduces toward an air down stream position.

28. (new) The heat exchanger according to claim 20, wherein each tube has an air upstream side and an air downstream side, a radius of an outer surface of the air upstream side being greater than a radius of an outer surface of the air downstream side.

29. (new) The heat exchanger according to claim 20, wherein each tube defines a plurality of passages in communication with the upper and lower chambers, each of the plurality of passages having the same cross-sectional area.